

REMARKS/ARGUMENTS

Claim Rejections – 35 USC §103

Claims 1-10 and 33 stand rejected under 35 USC §103(a) as being unpatentable over De Luca et al. (US 6,410,119) in view of Hoover et al. (US 5,693,163).

As more fully discussed in Applicants' previous response, De Luca is directed to a bubble wrap product having an inflation channel 31 that is bounded by first and second film sheets of a web 11 and defined between spaced-apart seal lines 33 and 35. Seal line 33 extends along one of the outermost longitudinal edges of the web while seal line 35 extends parallel to and inboard of seal line 33 (see FIG. 1). Thus, the two seal lines 33 and 35 join the first and second film sheets of web 11 together such that inflation channel 31 is bounded by the first and second film sheets with a width (when uninflated) or diameter (when inflated) that is defined by the spacing between the pair of seal lines 33 and 35.

In contrast, the claimed inflatable web employs a pair of longitudinal flanges that are open, i.e., not sealed together, at an outermost longitudinal edge of the web. Therefore, the flanges do not form a channel bounded on all sides as taught in De Luca, wherein the outer edge of the channel is sealed closed by seal line 33. This feature was previously clarified by amending claim 1 to specify that the "flanges hav[e] a pair of open, unsealed edges."

In the current Office Action, Hoover is cited in combination with De Luca in an attempt to cure the deficiency of the De Luca reference, namely, the failure of such reference to disclose flanges having a pair of open, unsealed edges. The Examiner argues that Hoover teaches that it is old and well-known in the analogous art to have flanges having a pair

of open, unsealed edges, citing col. 1, lines 57-60, wherein Hoover teaches a "plurality of preformed plastic bags ... sealed along three edges thereof with one edge remaining open...." The Examiner concludes that, because the open edges are provided "for the purpose of inflating air into the chambers to produce an air cushioning material to be used in packaging[,] ... it would have been obvious ... to have modified the flanges in De Luca et al. to have a pair of open, unsealed edges as suggested by Hoover et al. in order to inflate the chambers...." (Part 3 of 6/16/2004 Office Action.)

In response, Applicants contend that, when the Hoover and De Luca references are read as whole, they are not properly combinable in the manner suggested by the Examiner, and thus do not establish a *prima facie* case of obviousness.

Hoover discloses a roll 10 of plastic bags, wherein each bag 12 is formed from a first longitudinal seal 18, a second longitudinal seal 20, and a lateral seal 22; edge 24 is not sealed (col. 4, lines 13-18). Air tube 34 blows air into the open edge 24, which is then sealed closed via lateral seal 40 (col. 4, lines 22-26).

Significantly, Hoover's open edge 24 is not a longitudinal edge, but rather is a lateral edge. That is, open edge 24 does not extend longitudinally along the length of roll 10, but instead extends laterally across the width of the web (FIG. 2; col. 4, lines 13-26). In contrast, De Luca's inflation channel 31 extends linearly, i.e., longitudinally, along the length of web 11, e.g., along one side edge thereof (FIGS. 1-2; col. 5, lines 44-50). Thus, De Luca inflates the inflatable strips 21 by positioning inflation tube 59 within the longitudinally-extending inflation channel 31 and introducing air under pressure therein as web 11 moves continuously past the inflation tube, with the tube 'riding' within the inflation channel (col. 6, lines 25-30, 45-50, and 63-67; FIG. 1). Hoover,

on the other hand, must position air tube 34 externally of the roll 10 in order to blow air into the open lateral edge 24 of the bags as they pass beneath the air tube (FIG. 1; col. 4, lines 22-24).

Accordingly, the De Luca and Hoover webs contain fundamentally different structural elements, which result in fundamentally different methods for inflating their respective chambers. Specifically:

1) De Luca employs a longitudinal inflation channel; Hoover employs no inflation channel but, instead, features a lateral open edge for each bag;

2) De Luca directs air laterally into each inflatable strip (from the inflation channel); Hoover directs air longitudinally into each bag;

3) De Luca's inflation channel accommodates an inflation tube, which rides internally within the web as the web moves past the inflation tube; Hoover uses an air tube that is positioned externally of the web; and

4) De Luca's inflation tube inflates each of the inflatable strips indirectly by first inflating the inflation channel, which then directs air into the entrance ports of each inflatable strip (col. 6, lines 5-10 and 45-50); Hoover's air tube inflates each bag directly by blowing air into the open lateral edge of each bag.

Given the foregoing differences between De Luca and Hoover, Applicants submit that one having ordinary skill in the art would have had no motivation to combine the teachings of those references in the manner suggested in the Office Action. For example, Hoover teaches laterally-extending open edges; thus, there is nothing to suggest applying such open edges in a longitudinal orientation, which would be required as an initial modification of Hoover in order for its teaching to be applicable to De Luca in the manner suggested in the Office Action. Hoover further teaches that the laterally-extending open edges are for

each individual bag. Thus, a further required modification of Hoover's teaching would be to convert a plurality of open-bag edges to a single inflation channel that extends longitudinally along an inflatable web. Again, there is simply no teaching or suggestion in either Hoover or De Luca for such a modification.

MPEP §2143 sets forth the three essential criteria that must be met in order to establish a *prima facie* case of obviousness. **First**, there must be some suggestion or motivation in the prior art to combine the teachings of the references. **Second**, there must be a reasonable expectation of success. **Finally**, the prior art references must teach all the claim limitations. An important proviso is that the suggestion to make the claimed combination must be found in the prior art, and not in the applicant's application. MPEP §2143 (Eighth Edition, August 2001; Rev. 2, May 2004).

As fully articulated above, neither De Luca nor Hoover provides any suggestion or motivation to apply Hoover's teaching of multiple, transverse, open bag-edges to De Luca's single, longitudinal, enclosed inflation channel. Thus, the proposed combination of De Luca and Hoover does not satisfy the first requirement of MPEP §2143.

With regard to the second requirement of MPEP §2143, it is well-established that a proposed modification of prior art references cannot render the prior art unsatisfactory for its intended purpose, and cannot change the principle of operation of a reference. MPEP §2143.01 (Eighth Edition, August 2001; Rev. 2, May 2004). In the instant case, the proposed modification of De Luca based on Hoover would contravene both of the foregoing principles.

At col. 5, lines 52-58, De Luca specifies that the

inflation channel 31 is defined between spaced apart seal lines 33 and 35.

The seal line 33 is opened at spaced intervals to provide outlet ports 37. The outlet ports 37 function to permit a certain amount of the inflation pressure in the inflation channel 31 to be vented to atmosphere.

As explained at col. 6, lines 51-55,

[t]he outlet ports 37 ... serve to regulate the level of the air pressure within the inflation channel 31 (as described in more detail in co-pending application Ser. No. 09/638,843 incorporated by reference in this application).

In addition to regulating the level of air pressure within the inflation channel, the outlet ports 37 also facilitate accurate position sensing of the individual inflatable strips 21 by sensing escaping air from the outlet ports via a pressure transducer (paragraph bridging cols. 5-6).

If De Luca's inflation channel were modified by changing the enclosed channel into a pair of flanges having open, unsealed edges as proposed in the Office Action, seal line 33 at the outermost edge of inflation channel 31 would have to be removed, thereby eliminating the outlet ports 37 (see FIGS. 1 and 2). Such a modification would render the De Luca web unsatisfactory for its intended purpose because the outlet ports 37 would no longer be present "to regulate the level of the air pressure within the inflation channel 31" (col. 6, lines 51-55), or to allow escaping air from the outlet ports to be sensed by a pressure transducer (paragraph bridging cols. 5-6).

Moreover, converting the enclosed inflation channel 31 to a pair of unsealed flanges would completely change the principle of operation of the De Luca invention. As explained hereinabove, De Luca inflates each of the inflatable strips 21 indirectly by first inflating the inflation channel 31 with pressurized air, which then directs the pressurized air into the

entrance ports 41 of each of the inflatable strips (col. 6, lines 5-10). Col. 6, lines 45-50 further explains that

[a]n outlet bulb 57 of an inflation tube 59 is positioned within the inflation channel 31 and introduces air under pressure into the inflation channel for inflating the individual inflatable strips 21 by causing pressurized air to flow through the entrance ports 41.

If De Luca's inflation channel were modified by changing the enclosed channel into a pair of flanges having open, unsealed edges as proposed in the Office Action, the resultant open edge would no longer be capable of maintaining itself in an inflated state to direct pressurized air into the inflatable strips 21, thereby radically changing De Luca's principle of operation.

Accordingly, when the De Luca and Hoover references are read as a whole and without resort to hindsight reconstruction based on Applicants' disclosure, it is clear that the proposed combination thereof lacks both a motivational basis and an expectation of success. Under MPEP §2143, therefore, such combination does not constitute a *prima facie* case of obviousness against the presently claimed invention.

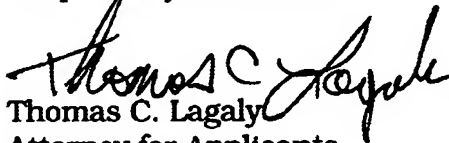
Finally, Applicants contend that even if the combination of De Luca and Hoover were properly supported by a motivational basis and an expectation of success, which is expressly denied for the reasons articulated above, such combination would fail to teach or suggest all of Applicants' claim limitations, which is set forth as the third requirement of MPEP §2143.

Claim 1 requires that the "longitudinal flanges [are] formed by a portion of each of said sheets that extend beyond said inflation ports and intermittent seals...." With reference to FIG. 2 and col. 4, lines 15-18 of Hoover, it is apparent that no portion of the open edge 24 extends beyond the first and second longitudinal seals 18 and 20. As explained

in Applicants' specification, e.g., at page 13, lines 16-24, the claimed flanges that extend beyond the seals permit an inflation nozzle to move continuously and longitudinally between the flanges to effect sequential inflation of the chambers. Hoover's open edge 24, which does not extend beyond the seals 18 and 20, would not permit such a means for inflation. If combined with De Luca, therefore, at least the above-quoted claim limitation would not be met. Accordingly, the proposed combination of De Luca and Hoover also fails to satisfy the third requirement of MPEP §2143.

For all of the foregoing reasons, Applicants respectfully submit that the proposed combination of De Luca and Hoover satisfies none of the requirements of MPEP §2143. Such combination, therefore, does not constitute a *prima facie* case of obviousness against the presently claimed invention. A Notice of Allowance is earnestly solicited.

Respectfully submitted,


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